

REPORT ON STEAM TURBINE MACHINERY. No. 102881

TURBO-ELECTRIC

Received at London Office

Date of writing Report

When handed in at Local Office

17. 5. 45 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

NEWCASTLE-ON-TYNE

Date, First Survey

(1944) Mar. 2nd

Last Survey

May 9th 1945

Reg. Book.

(Number of Visits 104)

Tons Gross 1266

Net 773

on the

TANKER S/S "OLNA"

Built at

WALLSEND

By whom built SWAN HUNTER & WIGHAM RICHARDSON

Yard No. 1689. When built 1945

Engines made at

RUGBY

By whom made B.T.H. CO. LD.

Engine No. SM. 171766. When made 1945

Boilers made at

GLASGOW (RENFREW)

By whom made BABCOCK & WILCOX LD.

Boiler No. 1746. When made 1945

Shaft Horse Power at Full Power

11000

Owners THE ADMIRALTY

Port belonging to 1766 1945

Nom. Horse Power as per Rule

2340

Is Refrigerating Machinery fitted for cargo purposes NO

Is Electric Light fitted YES

Trade for which Vessel is intended

OCEAN GOING

STEAM TURBINE ENGINES, &c.—Description of Engines TURBO-ELECTRIC (SEE ALSO LON RPT. NO. 112296 & 112320)

No. of Turbines Ahead ☒ Direct coupled, single reduction geared } to ☒ propelling shafts. No. of primary pinions to each set of reduction gearing ☒ Astern ☒ double red. ction geared }
Direct coupled to { Alternating Current Generator ☒ phase ☒ periods per second } rated ☒ Kilowatts ☒ Volts at ☒ revolutions per minute;
Supplying power for driving ☒ Propelling Motors, Type ☒
Direct coupled, single or double reduction geared to ☒ propelling shafts.
rated ☒ Kilowatts ☒ Volts at ☒ revolutions per minute.

TURBINE LOADING.	H.P.			I.P.			L.P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1st EXPANSION												
2nd												
3rd												
4th												
5th												
6th												
7th												
8th												
9th												
10th												
11th												
12th												
13th												
14th												
15th												
16th												
17th												
18th												
19th												
20th												

Shaft Horse Power at each turbine { H.P. ☒ I.P. ☒ L.P. ☒ } Revolutions per minute, at full power, of each Turbine Shaft { H.P. ☒ 1st reduction wheel ☒ I.P. ☒ main shaft ☒ L.P. ☒

Motor Shaft diameter at journals { H.P. ☒ I.P. ☒ L.P. ☒ } Pitch Circle Diameter { 1st pinion ☒ 1st reduction wheel ☒ 2nd pinion ☒ main wheel ☒ } Width of Face { 1st reduction wheel ☒ main wheel ☒

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion ☒ 1st reduction wheel ☒ 2nd pinion ☒ main wheel ☒

Flexible Pinion Shafts, diameter { 1st ☒ 2nd ☒ } Pinion Shafts, diameter at bearings { External ☒ Internal ☒ } 1st { ☒ 2nd { ☒ diameter at bottom of pinion teeth { 1st ☒ 2nd ☒

Wheel Shafts, diameter at bearings { 1st ☒ main ☒ } diameter at wheel shroud, { 1st ☒ main ☒ } Generator Shaft, diameter at bearings ☒ Propelling Motor Shaft, diameter at bearings ☒

Intermediate Shafts, diameter as per rule 18.96 as fitted 19.8 Thrust Shaft, diameter at collars as per rule 19.91 as fitted 20.8

Tube Shaft, diameter as per rule as fitted Screw Shaft, diameter as per rule 20.627 as fitted 20.34 Is the ☒ screw shaft fitted with a continuous liner ☒ YES

Bronze Liners, thickness in way of bushes as per rule 31/32 as fitted Thickness between bushes as per rule 70 as fitted 15/16 Is the after end of the liner made watertight in the propeller boss YES

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner CL. If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive TIGHT FIT.

If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube Length of Bearing in Stern Bush next to and supporting propeller 8'-8"

shaft NO. If so, state type. Propeller, diameter 20'-0" Pitch 15.02 MEAN No. of Blades 4 State whether Moveable NO. Total Developed Surface 195 square feet.

of Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Can the H.P. or I.P. Turbine exhaust direct to the

Condenser No. of Turbines fitted with astern wheels Feed Pumps No. and size MAIN BOILERS 2 MAIN & LAUX DONKEY BOILER 2 WEIRS How driven STEAM TURBO STEAM

Pumps connected to the Main Bilge Line { No. and size 2-5" DRYSDALE 80/H. 1- BALLAST 110/H. How driven ELECTRIC STEAM

Ballast Pumps, No. and size 1- HAYWARD TYLER 12" x 8 1/2" x 12 Lubricating Oil Pumps, including Spare Pump, No. and size 2- 160 galls/min.

Are two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room 2-4" 1-4" WELL 1-4" AFT WELL In Pump Room 2-4"

In Holds, etc. FORWARD PUMP ROOM 1-2 1/2" FOR COFFERDAM 1-4" AFT COFFERDAM 1-4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2-14" DIA. Independent Power Pump Direct Suctions to the Engine Room

Bilges, No. and size 1-6" DIA. 2-5" DIA. Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES

Are all Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks BOTH

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YES Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate YES

What pipes pass through the bunkers NONE How are they protected

What pipes pass through the deep tanks Have they been tested as per rule YES

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another YES Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

